**IN THE CLAIMS**:

Please **amend** claim 8 as follows. Please **cancel** claims 9, 10, and 12 without disclaimer and/or prejudice. Please **add** new claim 45 as follows.

1. (Previously Presented) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having an inner circumferential surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

a plurality of balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein each of said first guide grooves has a transverse cross section extending perpendicularly to said axial direction and having a single arcuate shape, each of said first guide grooves being held in contact with a corresponding one of the balls at a single point, and

wherein each of said second guide grooves has a transverse cross section extending perpendicularly to said axial direction and having elliptically arcuate shape, each of said second guide grooves being held in contact with a corresponding one of the balls at two points.

2. (Previously Presented) A constant-velocity joint according to claim 1, wherein ratios of a radius of each of said first guide grooves in a transverse cross section thereof and radiuses of each of said second guide grooves in a transverse cross section thereof to a diameter of said balls are set in a range from 0.51 to 0.55, a contact angle of each of the balls with respect to one of said first guide grooves is set to zero on a vertical line extending across the ball, and a contact angle ($\alpha$) of each of the balls with respect to one of said second guide grooves is set in a range from 13 degrees to 22 degrees from the vertical line.

3. (Previously Presented) A constant-velocity joint according to claim 2, wherein the contact angle ($\alpha$) of each of the balls with respect to one of said second guide grooves is set in a range from 15 degrees to 20 degrees from the vertical line.

4. (Previously Presented) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having a spherical inside-diameter surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

a plurality of balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein each of said first guide grooves has a curved longitudinal cross section extending in the axial direction and having a center of curvature, each of said second guide grooves has a curved longitudinal cross section extending in the axial direction and having a center of curvature, and said centers of curvature are offset oppositely in the axial direction by equal distances from a center of said spherical inside-diameter surface, and

wherein the ratio V of each of the distances by which said centers of curvature are offset from said center of said spherical inside-diameter surface to the diameter of said

balls is set to satisfy the expression $0.12 \leq V \leq 0.14$.

5. (Previously Presented) A constant-velocity joint according to claim 4, wherein each of said first guide grooves has a transverse cross section extending perpendicularly to said axial direction and having a single arcuate shape, each of said first guide grooves being held in contact with a corresponding one of the balls at a single point, and

wherein each of said second guide grooves has a transverse cross section extending perpendicularly to said axial direction and having elliptically arcuate shape, each of said second guide grooves being held in contact with a corresponding one of the balls at two points.

6. (Previously Presented) A constant-velocity joint according to claim 5, wherein ratios of a radius of each of said first guide grooves in a transverse cross section thereof and radiuses of each of said second guide grooves in a transverse cross section thereof to a diameter of said balls are set in a range from 0.51 to 0.55, a contact angle of each of the balls with respect to one of said first guide grooves is set to zero on a vertical line extending across the ball, and a contact angle ($\alpha$) of each of the balls with respect to one of said second guide grooves is set in a range from 13 degrees to 22 degrees from the vertical line.

7. (Previously Presented) A constant-velocity joint according to claim 6, wherein the contact angle ($\alpha$) of each of the balls with respect to one of said second guide grooves is set in a range from 15 degrees to 20 degrees from the vertical line.

8. (Currently Amended) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having an inner circumferential surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

six balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein said first guide grooves have a pitch circle diameter represented as an outer PCD, said second guide grooves have a pitch circle diameter represented as an inner PCD, and a PCD clearance represented by a difference between said outer PCD and said inner PCD (the outer PCD - the inner PCD) is set in a range from 0 to 100 $\mu$m.

wherein a spherical clearance established as a sum of a difference between an outer member inner-spherical-surface diameter which is a diameter of an inside-diameter surface of said outer member and a retainer outer-spherical-surface diameter which is a diameter of an outer surface of said retainer, and a difference between a retainer inner-spherical-surface diameter which is a diameter of an inner surface of said retainer and an inner ring outer-spherical-surface diameter which is a diameter of an outer surface of said inner ring is set in a range from 50 to 200 μm in accordance with the following expression:

$$50\ \mu m \leq \{(\text{outer member inner-spherical-surface diameter}) - (\text{retainer outer-spherical-surface diameter})\} + \{(\text{retainer inner-spherical-surface diameter}) - (\text{inner ring outer-spherical-surface diameter})\} \leq 200\ \mu m.$$

9-10. (Cancelled)

11. (Previously Presented) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having an inside-diameter surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

six balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein said first guide grooves have a pitch circle diameter represented as an outer PCD, said second guide grooves have a pitch circle diameter represented as an inner PCD, and a ratio (Dp/D) of a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, to a diameter (D) of an inner-ring serrated-region inside-diameter surface on an inner wall of said inner ring is set in a range of $1.9 \leq (Dp/D) \leq 2.2$.

12. (Cancelled)

13. (Previously Presented) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having an inside-diameter surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

six balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein said first guide grooves have a pitch circle diameter represented as an outer PCD, said second guide grooves have a pitch circle diameter represented as an inner PCD, and a ratio (Do/Dp) of an outside diameter (Do) of said outer member to a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $1.4 \leq (Do/Dp) \leq 1.8$.

14. (Previously Presented) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having an inside-diameter surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

six balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein said first guide grooves have a pitch circle diameter represented as an outer PCD, said second guide grooves have a pitch circle diameter represented as an inner PCD, and a ratio (Dp/D) of a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, to a diameter (D) of an inner-ring serrated-region inside-diameter surface on an inner wall of said inner ring is set in a range of $1.9 \leq (Dp/D) \leq 2.2$,

wherein a ratio (N/Dp) of a diameter (N) of said balls to the dimension (Dp) of the outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $0.2 \leq (N/Dp) \leq 0.5$, and

wherein a ratio (Do/Dp) of an outside diameter (Do) of said outer member to the dimension (Dp) of the outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $1.4 \leq (Do/Dp) \leq 1.8$.

15. (Previously Presented) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having an inner circumferential surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an

open end;

an inner ring connected to the other of said two shafts and having an outer circumferential surface having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

a plurality of balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein each of said retaining windows has an opening length (WL) extending in a circumferential direction of said retainer, and a ratio (WL/N) of said opening length (WL) to a diameter (N) of said balls is set in a range of $1.30 \leq (WL/N) \leq 1.42$.

16. (Previously Presented) A constant-velocity joint according to claim 15, wherein each of said retaining windows has corners each having a radius (R) of curvature, and a ratio (R/N) of said radius (R) of curvature to the diameter (N) of said balls is set in a range of $0.23 \leq (R/N) \leq 0.45$.

17. (Previously Presented) A constant-velocity joint according to claim 15, wherein each of said first guide grooves and said second guide grooves has a curved region and a straight region extending in a longitudinal direction thereof.

18. (Previously Presented) A constant-velocity joint according to claim 15, wherein each of said first guide grooves and said second guide grooves has only a curved region extending in a longitudinal direction thereof.

19. (Previously Presented) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having an inner circumferential surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

six balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein each of said first guide grooves has a transverse cross section extending perpendicularly to said axial direction and having a single arcuate shape, each of said first guide grooves being held in contact with a corresponding one of the balls at a single point,

wherein each of said second guide grooves has a transverse cross section extending perpendicularly to said axial direction and having elliptically arcuate shape, each of said second guide grooves being held in contact with a corresponding one of the balls at two points, and

wherein said first guide grooves have a pitch circle diameter represented as an outer PCD, said second guide grooves have a pitch circle diameter represented as an inner PCD, and a PCD clearance represented by a difference between said outer PCD and said inner PCD (the outer PCD - the inner PCD) is set in a range from 0 to 100 μm.

20. (Previously Presented) A constant-velocity joint according to claim 19, wherein ratios of a radius of each of said first guide grooves in a transverse cross section thereof and radiuses of each of said second guide grooves in a transverse cross section thereof to a diameter of said balls are set in a range from 0.51 to 0.55, a contact angle of each of the balls with respect to one of said first guide grooves is set to zero on a vertical line extending across the ball, and a contact angle ($\alpha$) of each of the balls with respect to one of said second guide grooves is set in a range from 13 degrees to 22 degrees from the vertical line.

21. (Previously Presented) A constant-velocity joint according to claim 19, wherein the contact angle ($\alpha$) of each of the balls with respect to one of said second guide

grooves is set in a range from 15 degrees to 20 degrees from the vertical line.

22. (Previously Presented) A constant-velocity joint according to claim 19, wherein a spherical clearance established as a sum of a difference between an outer member inner-spherical-surface diameter which is a diameter of an inside-diameter surface of said outer member and a retainer outer-spherical-surface diameter which is a diameter of an outer surface of said retainer, and a difference between a retainer inner-spherical-surface diameter which is a diameter of an inner surface of said retainer and an inner ring outer-spherical-surface diameter which is a diameter of an outer surface of said inner ring is set in a range from 50 to 200 μm in accordance with the following expression:

50 μm ≤ {(outer member inner-spherical-surface diameter) – (retainer outer-spherical-surface diameter)} + {(retainer inner-spherical-surface diameter) – (inner ring outer-spherical-surface diameter)} ≤ 200 μm.

23. (Previously Presented) A constant-velocity joint according to claim 19, wherein each of said retaining windows of the retainer has a transverse center which is offset from a center of spherical outer and inner surfaces of said retainer in an axial direction of the retainer by a distance ranging from 20 to 100 μm.

24. (Previously Presented) A constant-velocity joint according to claim 19, wherein a ratio (Dp/D) of a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, to a diameter (D) of an inner-ring serrated-region inside-diameter surface on an inner wall of said inner ring is set in a range of $1.9 \leq (Dp/D) \leq 2.2$.

25. (Previously Presented) A constant-velocity joint according to claim 19, wherein a ratio (N/Dp) of a diameter (N) of said balls to a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $0.2 \leq (N/Dp) \leq 0.5$.

26. (Previously Presented) A constant-velocity joint according to claim 19, wherein a ratio (Do/Dp) of an outside diameter (Do) of said outer member to a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $1.4 \leq (Do/Dp) \leq 1.8$.

27. (Previously Presented) A constant-velocity joint according to claim 19, wherein a ratio (Dp/D) of a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, to a diameter (D) of an inner-ring serrated-region inside-diameter surface on an inner wall of said inner ring is set in a

range of $1.9 \leq (Dp/D) \leq 2.2$,

wherein a ratio (N/Dp) of a diameter (N) of said balls to the dimension (Dp) of the outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $0.2 \leq (N/Dp) \leq 0.5$, and

wherein a ratio (Do/Dp) of an outside diameter (Do) of said outer member to the dimension (Dp) of the outer/inner PCD is set in a range of $1.4 \leq (Do/Dp) \leq 1.8$.

28. (Previously Presented) A constant-velocity joint according to claim 19, wherein each of said retaining windows has an opening length (WL) extending in a circumferential direction of said retainer, and a ratio (WL/D) of said opening length (WL) to a diameter (D) of said balls is set in a range of $1.30 \leq (WL/D) \leq 1.42$.

29. (Previously Presented) A constant-velocity joint according to claim 28, wherein each of said retaining windows has corners each having a radius (R) of curvature, and a ratio (R/N) of said radius (R) of curvature to the diameter (N) of said balls is set in a range of $0.23 \leq (R/N) \leq 0.45$.

30. (Previously Presented) A constant-velocity joint according to claim 28, wherein each of said first guide grooves and said second guide grooves has a curved region and a straight region extending in a longitudinal direction thereof.

31. (Previously Presented) A constant-velocity joint according to claim 28, wherein each of said first guide grooves and said second guide grooves has only a curved region extending in a longitudinal direction thereof.

32. (Previously Presented) A constant-velocity joint comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having a spherical inside-diameter surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

six balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein each of said first guide grooves has a transverse cross section extending perpendicularly to said axial direction and having a single arcuate shape, each of said first guide grooves being held in contact with a corresponding one of the balls at a single point,

wherein each of said second guide grooves has a transverse cross section extending perpendicularly to said axial direction and having elliptically arcuate shape, each of said second guide grooves being held in contact with a corresponding one of the balls at two points,

wherein said first guide grooves have a pitch circle diameter represented as an outer PCD, said second guide grooves have a pitch circle diameter represented as an inner PCD, and a PCD clearance represented by a difference between said outer PCD and said inner PCD (the outer PCD - the inner PCD) is set in a range from 0 to 100 μm,

wherein each of said first guide grooves has a curved longitudinal cross section extending in the axial direction and having a center of curvature, each of said second guide grooves has a curved longitudinal cross section extending in the axial direction and having a center of curvature, and said centers of curvature are offset oppositely in the axial direction by equal distances from a center of said spherical inside-diameter surface, and

wherein the ratio V of each of the distances by which said centers of curvature are offset from said center of said spherical inside-diameter surface to the diameter of said balls is set to satisfy the expression $0.12 \leq V \leq 0.14$.

33. (Previously Presented) A constant-velocity joint according to claim 32, wherein ratios of a radius of each of said first guide grooves in a transverse cross section

thereof and radiuses of each of said second guide grooves in a transverse cross section thereof to a diameter of said balls are set in a range from 0.51 to 0.55, a contact angle of each of the balls with respect to one of said first guide grooves is set to zero on a vertical line extending across the ball, and a contact angle ($\alpha$) of each of the balls with respect to one of said second guide grooves is set in a range from 13 degrees to 22 degrees from the vertical line.

34. (Previously Presented) A constant-velocity joint according to claim 32, wherein the contact angle ($\alpha$) of each of the balls with respect to one of said second guide grooves is set in a range from 15 degrees to 20 degrees from the vertical line.

35. (Previously Presented) A constant-velocity joint according to claim 32, wherein a spherical clearance established as a sum of a difference between an outer member inner-spherical-surface diameter which is a diameter of an inside-diameter surface of said outer member and a retainer outer-spherical-surface diameter which is a diameter of an outer surface of said retainer, and a difference between a retainer inner-spherical-surface diameter which is a diameter of an inner surface of said retainer and an inner ring outer-spherical-surface diameter which is a diameter of an outer surface of said inner ring is set in a range from 50 to 200 μm in accordance with the following expression:

50 μm ≤ {(outer member inner-spherical-surface diameter) – (retainer outer-spherical-surface diameter)} + {(retainer inner-spherical-surface diameter) – (inner ring outer-spherical-surface diameter)} ≤ 200 μm.

36. (Previously Presented) A constant-velocity joint according to claim 32, wherein each of said retaining windows of the retainer has a transverse center which is offset from a center of spherical outer and inner surfaces of said retainer in an axial direction of the retainer by a distance ranging from 20 to 100 μm.

37. (Previously Presented) A constant-velocity joint according to claim 32, wherein a ratio (Dp/D) of a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, to a diameter (D) of an inner-ring serrated-region inside-diameter surface on an inner wall of said inner ring is set in a range of $1.9 \leq (Dp/D) \leq 2.2$.

38. (Previously Presented) A constant-velocity joint according to claim 32, wherein a ratio (N/Dp) of a diameter (N) of said balls to a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $0.2 \leq (N/Dp) \leq 0.5$.

39. (Previously Presented) A constant-velocity joint according to claim 32, wherein a ratio (Do/Dp) of an outside diameter (Do) of said outer member to a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $1.4 \leq (Do/Dp) \leq 1.8$.

40. (Previously Presented) A constant-velocity joint according to claim 32, wherein a ratio (Dp/D) of a dimension (Dp) of an outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, to a diameter (D) of an inner-ring serrated-region inside-diameter surface on an inner wall of said inner ring is set in a range of $1.9 \leq (Dp/D) \leq 2.2$,

wherein a ratio (N/Dp) of a diameter (N) of said balls to the dimension (Dp) of the outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $0.2 \leq (N/Dp) \leq 0.5$, and

wherein a ratio (Do/Dp) of an outside diameter (Do) of said outer member to the dimension (Dp) of the outer/inner PCD, which represents the outer PCD and the inner PCD that are equal to each other, is set in a range of $1.4 \leq (Do/Dp) \leq 1.8$.

41. (Previously Presented) A constant-velocity joint according to claim 32, wherein each of said retaining windows has an opening length (WL) extending in a circumferential direction of said retainer, and a ratio (WL/N) of said opening length (WL)

to a diameter (N) of said balls is set in a range of $1.30 \leq (WL/N) \leq 1.42$.

42. (Previously Presented) A constant-velocity joint according to claim 41, wherein each of said retaining windows has corners each having a radius (R) of curvature, and a ratio (R/N) of said radius (R) of curvature to the diameter (N) of said balls is set in a range of $0.23 \leq (R/N) \leq 0.45$.

43. (Previously Presented) A constant-velocity joint according to claim 41, wherein each of said first guide grooves and said second guide grooves has a curved region and a straight region extending in a longitudinal direction thereof.

44. (Previously Presented) A constant-velocity joint according to claim 41, wherein each of said first guide grooves and said second guide grooves has only a curved region extending in a longitudinal direction thereof.

45. (New) A constant-velocity joint, comprising:

an outer member connected to one of two shafts which are angularly movable relative to each other and having an inner circumferential surface having a plurality of first guide grooves extending in an axial direction thereof, said outer member having an open end;

an inner ring connected to the other of said two shafts and having as many second guide grooves as the number of said first guide grooves, said second guide grooves extending in an axial direction thereof;

six balls rollingly disposed between said first guide grooves and said second guide grooves, for transmitting a torque between said outer member and said inner ring; and

a retainer having retaining windows retaining said balls, respectively, therein,

wherein said first guide grooves have a pitch circle diameter represented as an outer PCD, said second guide grooves have a pitch circle diameter represented as an inner PCD, and a PCD clearance represented by a difference between said outer PCD and said inner PCD (the outer PCD - the inner PCD) is set in a range from 0 to 100 μm,

wherein each of said retaining windows of the retainer has a transverse center which is offset from a center of spherical outer and inner surfaces of said retainer in an axial direction of the retainer by a distance ranging from 20 to 100 μm.